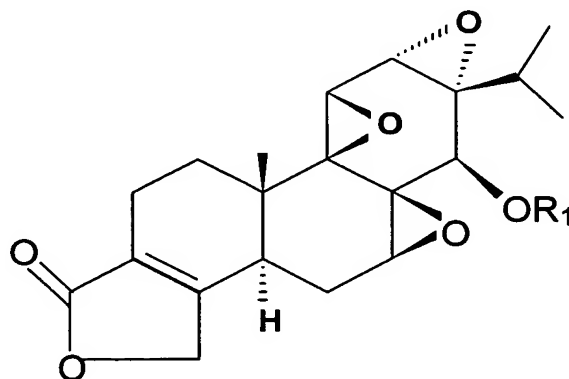


What is claimed is:

1. A triptolide derivative of formula I



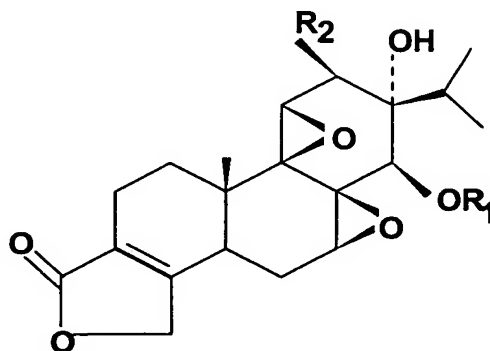
I

wherein R₁ is H, phosphate ($-\text{P}(\text{O})(\text{Ox}_1)(\text{Ox}_2)$), or phosphite ($-\text{P}(\text{O})(\text{Ox}_1)(\text{H})$), and

X₁ and X₂ are Na, K, or NH₄.

2. A method for preparation of the compound according to claim 1, comprising the step of reacting the first lead compound triptolide with POCl₃, PCl₃ or other phosphonate halide, phosphate, phosphite halide, phosphite.

3. A triptolide derivative of formula II

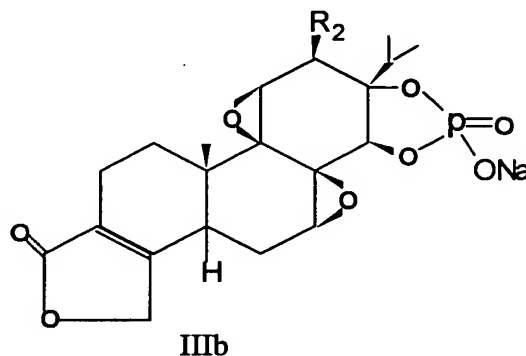


phosphate ($-\overset{\text{O}}{\underset{\text{O}_2}{\text{P}}}^{\text{O}_1}$), or phosphite ($-\overset{\text{O}}{\underset{\text{H}}{\text{P}}}^{\text{O}_1}$),

4. A method for preparation of the compound according to claim 3, comprising the step of esterifying or phosphoric esterifying the second lead compound 12- β -thiocyano-13- α -hydroxy triptolide with succinic anhydride to obtain the compound of formula II, or the step of phosphoric esterifying the second lead compound 12- β -thiocyano-13- α -hydroxy triptolide with POCl₃, PCl₃, phosphonate halide, phosphate, phosphite halide, or phosphite to obtain the compound of formula II.

IIIa

or



6. A method for preparation of the compound according to claim 5, comprising the step of reacting the second lead compound 12- β -thiocyano-13- α -hydroxy triptolide with POCl₃ or other phosphonate halide, phosphate, phosphite and the like, or the step of reacting the first lead compound triptolide with POCl₃ or other phosphonate halide, phosphite halide and the like.

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8. The use according to claim 7, wherein said immunosuppressive agent or anti-inflammatory agent is used in the treatment of diseases associated with growth of lymphocytes T and B cells; production of cytokines such as IL-1, IL-2, IL-6, and iNOS; and production of Cox-2.

9. The use according to claim 8, wherein said diseases are autoimmune deficiency diseases and inflammatory diseases.

10. The use according to claim 9, wherein said diseases are selected from the group consisted of rheumatoid arthritis, asthma, systemic lupus erythematosus, psoriasis, multiple sclerosis, atherosclerosis, type I diabetes, and nephritis.

11. The use according to claim 7, wherein said immunosuppressive agent or anti-inflammatory agent is used in the prevention of organ rejection and prolongation of the survival time of transplanted organ in organ transplantation.